

08/140,729

APPROVED	O.G. FIG.—	
BY	CLASS	SUBCLASS
DRAFTSMAN	435	240.2

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FIG. 1A

CACCTCTAGC	TCGAGCGGC	GTGTAGCGCC	ATG Met	GAG Glu	AAG Lys	AGC Ser	AAC Asn	GAG Glu	ACC Thr	AAC Asn	54
			1				5				
GGC Gly	TAC Tyr	CTT Leu	GAC Asp	AGC Ser	GCT Ala	CAG Gln	GCG Ala	GGG Gly	CCT Pro	GCC Ala	102
	10					15					
CCG Pro	GGG Gly	ACC Thr	GCG Ala	GCG Ala	GCA Ala	CGC Arg	CGG Arg	CGC Arg	TTC Phe	CTG Leu	150
25						30					
CGC Arg	CAA Gln	GCG Ala	CTG Leu	GTG Val	CTG Leu	CTC Leu	ACC Thr	GTG Val	TCC Ser	GTG Val	198
				45							
GGC Gly	CTG Leu	GGC Gly	Ala Ala	GCG Ala	GGG Gly	CGC Arg	CTC Leu	AGC Ser	AGC Thr	GTC Val	246
			60								
ACC Thr	TAC Tyr	CTG Leu	GCC Ala	Phe Phe	TTC Phe	CCC Pro	GGC Gly	GAG Glu	ATG Met	CGC Arg	294
ATC Ile	ATC Ile	CTG Leu	CCG Pro	CTG Leu	GTG Val	GTC Val	AGC Ser	TCG Ser	GCC Ala	TCG Ser	342
	90					95					

APPROVED BY	O.G. FIG.	
	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 1B

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CTC Leu 105	GAT Asp	GCC Ala	AGC Ser	TGC Cys	CTC Leu 110	GGG Gly	CGT Arg	CTG Leu	GGC Gly	GGC Gly 115	ATC Ile	CGT Arg	GTC Val	GCC Ala	TAC Tyr 120	390
TTT Phe	GGC Gly	CTC Leu	ACC Thr	ACA Thr 125	CTG Leu	AGT Ser	GCC Ala	TCG Ser	GGC Ala 130	CTC Leu	GCC Ala	GTG Val	GCC Ala	TTG Leu 135	GCG Ala	438
TTC Phe	ATC Ile	ATC Ile	AAG Lys 140	CCA Pro	GGA Gly	TCC Ser	GGT Gly	GCG Ala 145	CAG Gln	ACC Thr	CTT Leu	CAG Gln	TCC Ser 150	AGC Ser	GAC Asp	486
CTG Leu	GGG Gly	CTG Leu 155	GAG Glu	GAC Asp	TCG Ser	GGG Gly	CCT Pro 160	CCT Pro	CCT Pro	GTC Val	CCC Pro	AAA Lys 165	GAG Glu	ACG Thr	GTG Val	534
GAC Asp	TCT Ser 170	TTC Phe	CTC Leu	GAC Asp	CTG Leu	GCC Ala 175	AGA Arg	AAC Asn	CTG Leu	TTT Phe	CCC Pro 180	TCC Ser	AAT Asn	CTT Leu	GTG Val	582
GTT Val 185	GCA Ala	GCT Ala	TTC Phe	CGT Arg	ACG Thr 190	TAT Tyr	GCA Ala	ACC Thr	GAT Asp	TAT Tyr 195	AAA Lys	GTC Val	GTG Val	ACC Thr	CAG Gln 200	630
AAC Asn	AGC Ser	AGC Ser	TCT Ser	GGA Gly 205	AAT Asn	GTA Val	ACC Thr	CAT His	GAA Glu 210	AAG Lys	ATC Ile	CCC Pro	ATA Ile	GGC Gly 215	ACT Thr	678

APPROVED BY	O.G. FIG.	
	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 1C

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GAG Glu	ATA Ile	GAA Glu	GGG Gly	ATG Met	AAC Asn	ATT Ile	TTA Leu	GGA Gly	TTG Leu	GTC Val	CTG Leu	TTT Phe	GCT Ala	CTG Leu	GTG Val	726
		220	225										230			
TTA Leu	CGA Gly	GTG Val	GCC Ala	TTA Leu	AAG Lys	AAA Lys	CTA Leu	GGC Gly	TCC Ser	GAA Glu	GGA Gly	GAA Glu	GAC Asp	CTC Leu	ATC Ile	774
		235					240					245				
CGT Arg	TTC Phe	TTC Phe	AAT Asn	TCC Ser	CTC Leu	AAC Asn	GAG Glu	GCG Ala	ACG Thr	ATG Met	GTG Val	CTG Leu	GTG Val	TCC Ser	TGG Trp	822
	250				255						260					
ATT Ile	ATG Met	TGG Trp	TAC Tyr	GTA Val	CCT Pro	GTG Val	GGC Gly	ATC Ile	ATG Met	TTC Phe	CCT Leu	GTT Val	GGA Gly	AGC Ser	AAG Lys	870
	265				270					275					280	
ATC Ile	GTG Val	GAA Glu	ATG Met	AAA Lys	GAC Asp	ATC Ile	ATC Ile	GTG Val	CTG Leu	GTG Val	ACC Thr	AGC Ser	CTG Leu	GGG Gly	AAA Lys	918
			285						290					295		
TAC Tyr	ATC Ile	TTC Phe	GCA Ala	TCT Ser	ATA Ile	TTG Leu	GGC Gly	CAT His	GTT Val	ATT Ile	CAT His	GGA Gly	GGA Gly	ATT Ile	GTT Val	966
			300					305					310			
CTG Leu	CCA Pro	CTT Leu	ATT Ile	TAT Tyr	TTT Phe	GTT Val	TTC Phe	ACA Thr	CGA Arg	AAA Lys	AAC Asn	CCA Pro	TTC Phe	AGA Arg	TTC Phe	1014
		315					320					325				

APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

FIG. 1D

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CTC Leu 330	CTG Leu 330	GGC Gly	CTC Leu	CTC Leu	GCC Ala	CCA Pro 335	TTT Phe	GCG Ala	ACA Thr	GCA Ala	TTT Phe 340	GCT Ala	ACC Thr	TGC Cys	TCC Ser	1062
AGC Ser 345	TCA Ser	GCG Ala	ACC Thr	CTT Leu	CCC Pro 350	TCT Ser	ATG Met	ATG Met	AAG Lys	TGC Cys 355	ATT Ile	GAA Glu	GAG Glu	AAC Asn	AAT Asn 360	1110
GGT Gly	GTG Val	GAC Asp	AAG Lys	AGG Arg 365	ATC Ile	AGC Ser	AGG Arg	TTT Phe	ATT Ile 370	CTC Leu	CCC Pro	ATC Ile	GGG Gly	GCC Ala	ACC Thr 375	1158
GTG Val	AAC Asn	ATG Met	GAC Asp 380	GGA Gly	GCA Ala	GCC Ala	ATC Ile	TTC Phe 385	CAG Gln	TGT Cys	GTG Val	GCC Ala	CCG Ala 390	GTG Val	TTC Phe	1206
ATT Ile	GCG Ala	CAA Gln 395	CTC Leu	AAC Asn	AAC Asn	ATA Ile	GAG Glu 400	CTC Leu	AAC Asn	GCA Ala	GGA Gly	CAG Gln 405	ATT Ile	TTC Phe	ACC Thr	1254
ATT Ile	CTA Leu 410	GTG Val	ACT Thr	GCC Ala	ACA Thr	GCG Ala 415	TCC Ser	AGT Ser	GTT Val	GGA Gly	GCA Ala 420	GCA Ala	GGC Gly	GTG Val	CCA Pro	1302
GCT Ala 425	GGA Gly	GGG Gly	GTC Val	CTC Leu	ACC Thr 430	ATT Ile	GCC Ala	ATT Ile	ATC Ile	CTG Leu 435	GAG Glu	GCC Ala	ATT Ile	GGG Gly	CTG Leu 440	1350

APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

FIG. 1E

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CCT Pro	ACT Thr	CAT His	GAC Asp	CTG Leu 445	CCT Pro	CTG Leu	ATC Ile	CTG Leu	GCT Ala 450	GTG Val	GAC Asp	TGG Trp	ATT Ile	GTG Val 455	GAC Asp	1398
CGG Arg	ACC Thr	ACC Thr	ACG Thr 460	GTG Val	GTG Val	AAT Asn	GTG Val	GAG Glu 465	GGG Gly	GAT Asp	GCC Ala	CTG Leu	GGT Gly 470	GCA Ala	GGC Gly	1446
ATT Ile	CTC Leu	CAC His 475	CAC His	CTG Leu	AAT Asn	CAG Gln	AAG Lys 480	GCA Ala	ACA Thr	AAG Lys	AAA Lys	GGC Gly 485	GAG Glu	CAG Gln	GAA Glu	1494
CTT Leu	GCT Ala 490	GAG Glu	GTG Val	AAA Lys	GTG Val	GAA Glu 495	GCC Ala	ATC Ile	CCC Pro	AAC Asn	TGC Cys 500	AAG Lys	TCT Ser	GAG Glu	GAG Glu	1542
GAG Glu 505	ACA Thr	TCG Ser	CCC Pro	CTG Leu	GTG Val 510	ACA Thr	CAC His	CAG Gln	AAC Asn 515	CCC Pro	GCT Ala	GGC Gly	CCC Pro	GTG Val	GCC Ala 520	1590
AGT Ser	GCC Ala	CCA Pro	GAA Glu	CTG Leu 525	GAA Glu	TCC Ser	AAG Lys	GAG Glu	TCG Ser 530	GTT Val	CTG Leu	TGATGGGGCT				1636
GGGCTTTGGG CTTGCCCTGCC AGCAGTGATG TCCCACCCTG TTCA																1680

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 2A

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AAAGAAGAGA	CCCTCCTAG	AAAGTAAAT	ATG Met	ACT Thr	AAA Lys	AGC Ser	AAT Asn	GGA Gly	GAA Glu	GAG Glu	54
				1				5			
CCC Pro	AAG Lys	ATG Met	AGG Arg	ATG Met	GAG Glu	AGC Arg	GGA Gly	GTC Val	CTG Arg	AAA Lys	102
	10	15				20					
CGC Arg	ACA Thr	CTT Leu	AGG Lys	GTG Val	CAG Asn	ATT Ile	ACA Thr	AAG Lys	GAG Glu	GTT Val	150
	25		30		35					40	
GTT Val	AAA Lys	AGT Ser	TTT Phe	GCT Ala	TTT Phe	CTG Leu	ACA Thr	ACA Thr	GTC Val	ACC Thr	198
					50				55		
GCT Ala	GTC Val	ATT Ile	GGT Gly	GGA Gly	TTT Phe	CTC Leu	CGA Arg	CCA Pro	TAC Tyr	AGA Arg	246
				65				70			
ATG Met	AGC Ser	TAC Tyr	CGG Arg	GTC Val	TTC Phe	CCT Pro	GGG Gly	GAA Glu	CTT Leu	CTG Leu	294
		75			80		85				
ATG Met	AGG Arg	ATG Met	ATG Met	GTC Val	TTA Leu	ATC Ile	ATC Ile	TCC Ser	AGT Ser	CTT Leu	342
						95	100				

FIG. 2B

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APPROVED BY	O.G. FIG.	
	CLASS	SUBCLASS
DRAFTSMAN		

GTC Val 105	ACA Thr	GGA Gly	ATG Met	GCG Ala	GCG Ala 110	CTA Leu	GAT Asp	AGT Ser	AAG Lys	GCA Ala 115	TCA Ser	GGG Gly	AAG Lys	TGG Trp	GAA Glu 120	390
TGC Cys	GGA Gly	GCT Ala	GTA Val	GTC Val 125	TAT Tyr	TAT Tyr	ATG Met	ACT Thr	ACC Thr 130	ACC Thr	ATC Ile	ATT Ile	GCT Ala	GTG Val 135	GTG Val	438
ATT Ile	GGC Gly	ATA Ile	ATC Ile 140	ATT Ile	GTC Val	ATC Ile	ATC Ile	ATC Ile 145	CAT His	CCT Pro	GGG Gly	AAG Lys	GGC Gly 150	ACA Thr	AAG Lys	486
GAA Glu	AAC Asn	ATG Met 155	CAC His	AGA Arg	GAA Glu	GGC Gly	AAA Lys 160	ATT Ile	GTA Val	CGA Arg	GTG Val	ACA Thr 165	GCT Ala	GCA Ala	GAT Asp	534
GCC Ala	TTC Phe 170	CTG Leu	GAC Asp	TTG Leu	ATC Ile	AGG Arg 175	AAC Asn	ATG Met	TTA Leu	AAT Asn	CCA Pro 180	AAT Asn	CTG Leu	GTA Val	GAA Glu	582
GCC Ala 185	TGC Cys	TTT Phe	AAA Lys	GAG Gln	TTT Phe 190	AAA Lys	ACC Thr	AAC Asn	TAT Tyr	GAG Glu 195	AAG Lys	AGA Arg	AGC Ser	TTT Phe	AAA Lys 200	630
GTG Val	CCC Pro	ATC Ile	GAG Gln	GCC Ala 205	AAC Asn	GAA Glu	ACG Thr	CCT Leu	GTG Val 210	GGT Gly	GCT Ala	GTG Val	ATA Ile	AAC Asn 215	AAT Asn	678

APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

FIG. 2C

SHEET 8 OF 42

GTG Val	TCT Ser	GAG Glu	GCC Ala	ATG Met	GAG Glu	ACT Thr	CTT Leu	ACC Thr	CGA Arg	ATC Ile	ACA Thr	GAG Glu	GAG Glu	CTG Leu	GTC Val	726
			220					225				230				
CCA Pro	GTT Val	CCA Pro	GGA Gly	TCT Ser	GTG Val	AAT Asn	GGA Gly	GTC Val	AAT Asn	GCC Ala	CTG Leu	GGT Gly	CTA Leu	GTT Val	GTC Val	774
		235					240					245				
TTC Phe	TCC Ser	ATG Met	TGC Cys	TTC Phe	GGT Gly	TTT Phe	GTG Val	ATT Ile	GGA Gly	AAC Asn	ATG Met	AAG Lys	GAA Glu	CAG Gln	GGG Gly	822
	250					255					260					
GAG Gln	GCC Ala	CTG Leu	AGA Arg	GAG Glu	TTC Phe	TTT Phe	GAT Asp	TCT Ser	CTT Leu	AAC Asn	GAA Glu	GCC Ala	ATC Ile	ATG Met	AGA Arg	870
	265					270				275					280	
CTG Leu	GTA Val	GCA Ala	GTA Val	ATA Ile	ATG Met	TGG Trp	TAT Tyr	GCC Ala	CCC Pro	GTG Val	GGT Gly	ATT Ile	CTC Leu	TTC Phe	CTG Leu	918
				285					290					295		
ATT Ile	GCT Ala	GGG Gly	AAG Lys	ATT Ile	GTG Val	GAG Glu	ATG Met	GAA Glu	GAC Asp	ATG Met	GGT Gly	GTG Val	ATT Ile	GGG Gly	GGG Gly	966
			300					305					310			
CAG Gln	CTT Leu	GCC Ala	ATG Met	TAC Tyr	ACC Thr	GTG Val	ACT Thr	GTC Val	ATT Ile	GTT Val	GGC Gly	TTA Leu	CTC Leu	ATT Ile	CAC His	1014
		315					320					325				

APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

FIG. 2D

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GCA Ala	GTC Val	330	ATC Ile	GTC Val	TTG Leu	CCA Pro	CTC Leu	335	CTC Leu	TAC Tyr	TTC Phe	TTG Leu	GTA Val	340	ACA Thr	CGG Arg	AAA Lys	AAC Asn	1062
CCT Pro	TGG Trp	345	GTT Val	TTT Phe	ATT Ile	GGA Gly	GGG Gly	350	TTG Leu	CTG Leu	CAA Gln	GCA Ala	CTC Leu	355	ATC Ile	ACC Thr	GCT Ala	CTG Leu	360
GGG Gly	ACC Thr		TCT Ser	TCA Ser	AGT Ser	365	TCT Ser	GCC Ala	ACC Thr	CTA Leu	CCC Pro	ATC Ile	ACC Thr	370	TTC Phe	AAG Lys	TGC Cys	CTG Leu	375
GAA Glu	GAG Glu		AAC Asn	AAT Asn	380	GGC Gly	GAC Asp		AAG Lys	CGC Arg	GTC Val	ACC Thr	AGA Arg		TTC Phe	GTG Val	CTC Leu	CCC Pro	1206
GTA Val	GGA Gly		GCC Ala	ACC Thr	395	ATT Ile	ATG Met	400	GAT Asp	GGG Gly	ACT Thr	GCC Ala	CTC Leu	405	TAT Tyr	GAG Glu	GCT Ala	TTG Leu	1254
GCT Ala	GCC Ala	410	ATT Ile	TTC Phe	ATT Ile	GCT Ala	CAA Gln	415	GTT Val	AAC Asn	AAC Asn	TTT Phe	GAA Glu	420	CTG Leu	AAC Asn	TTC Phe	GGA Gly	1302
CAA Gln	ATT Ile	425	ATT Ile	ACA Thr	ATC Ile	AGC Ser	ATC Ile	430	ACA Thr	GCC Ala	ACA Thr	GCT Ala	GCC Ala	435	AGT Ser	ATT Ile	GGG Gly	GCA Ala	440

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 2E

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GCT Ala	GGA Gly	ATT Ile	CCT Pro	CAG Gln 445	GCG Ala	GGC Gly	CTG Leu	GTC Val	ACT Thr 450	ATG Met	GTC Val	ATT Ile	GTG Val	CTG Leu 455	ACA Thr	1398
TCT Ser	GTC Val	GGC Gly	CTG Leu 460	CCC Pro	ACT Thr	GAC Asp	GAC Asp	ATC Ile	ACG Thr	CTC Leu	ATC Ile	ATC Ile	GCG Ala 470	GTG Val	GAC Asp	1446
TGG Trp	TTC Phe	TTG Leu 475	GAT Asp	CGC Arg	CTC Leu	CGG Arg	ACC Thr 480	ACC Thr	ACC Thr	ACC Asn	GTA Val	CTG Leu 485	GGA Gly	GAC Asp	TCC Ser	1494
CTG Leu	GGA Gly 490	GCT Ala	GGG Gly	ATT Ile	GTG Val	GAG Glu 495	CAC His	TTG Leu	TCA Ser	CGA Arg	CAT His 500	GAA Glu	CTG Leu	AAG Lys	AAC Asn	1542
AGA Arg 505	GAT Asp	GTT Val	GAA Glu	ATG Met	GGT Gly 510	AAC Asn	TCA Ser	GTG Val	ATT Ile	GAA Glu 515	GAG Glu	ATT Asn	GAA Glu	ATG Met	AAG Lys 520	1590
AAA Lys	CCA Pro	TAT Tyr	CAA Gln	CTG Leu 525	ATT Ile	GCA Ala	CAG Gln	GAC Asp	AAT Asn 530	GAA Glu	ACT Thr	GAG Glu	AAA Lys	CCC Pro 535	ATC Ile	1638
GAC Asp	AGT Ser	GAA Glu	ACC Thr 540	AAG Lys	ATG Met	TAGACTAACA	TAAAGAAACA	CTTT								1680

APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

FIG. 3A

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GATAGTGCTG	AAGAGGAGGG	GCGTTCCCAG	ACC	ATG	GCA	TCT	ACG	GAA	GGT	GCC	54
				Met 1	Ala	Ser	Thr	Glu 5	Gly	Ala	
AAC	AAT	ATG	CCC	AAG	CAG	GTG	GAA	GTG	CTT	102	
Asn	Asn	Met 10	Pro	Lys	Gln	Val	Glu 15	Met	His	Leu	
GGC	TCA	GAG	GAA	CCC	AAG	CAC	CGG	CTG	TGT	GAC	150
Gly	Ser 25	Glu	Glu	Pro	Lys	His 30	Arg	Leu	Cys	Asp	
AAG	CTG	GGG	AAG	Asn	CTG	Leu	CTC	GGT	GTC	ATC	198
Lys 40	Leu	Gly	Lys	Asn	Leu	Leu	Leu	Gly	Val	Ile 55	
CTG	GGA	GCA	GTG	TGT	GGA	GGG	CTT	CCC	ATC	CAC	246
Leu	Gly	Ala	Val	Cys	Gly	Gly	Leu	Pro	Ile 70	His	
CCT	GAT	GTG	GTT	ATG	TTA	ATA	GCC	CTC	ATG	AGG	294
Pro	Asp	Val	Val 75	Met	Leu	Ile	Ala	Leu	Met	Arg	
ATG	CTA	AAA	ATG	CTC	ATT	CTG	GGT	TTA	ATC	ACA	342
Met	Leu	Lys 90	Met	Leu	Ile	Leu	Gly 95	Ser	Ile	Thr	

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 3B

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GGG Gly	TTG Leu 105	TCA Ser	GGC Gly	CTG Leu	GAT Asp	GCT Ala 110	AAG Lys	GCT Ala	AGT Ser	GGC Gly 115	CGC Arg	TTG Leu	GGC Gly	ACG Thr	AGA Arg	390
GCC Ala 120	ATG Met	GTG Val	TAT Tyr	TAC Tyr	ATG Met 125	TCC Ser	ACG Thr	ACC Thr	ATC Ile	ATT Ile 130	GCT Ala	GCA Ala	GTA Val	CTG Leu	GGG Gly 135	438
GTC Val	ATT Ile	CTG Leu	GTC Val	TTG Leu 140	GCT Ala	ATC Ile	CAT His	CCA Pro	GGC Gly 145	AAT Asn	CCC Pro	AAG Lys	CTC Leu	AAG Lys 150	AAG Lys	486
CAG Gln	CTG Leu	GGG Gly	CCT Pro 155	GGG Gly	AAG Lys	AAG Lys	AAT Asn	GAT Asp 160	GAA Glu	GTG Val	TCC Ser	AGC Ser	CTG Leu 165	GAT Asp	GCC Ala	534
TTC Phe	CTG Leu	GAC Asp 170	CTT Leu	ATT Ile	CGA Arg	AAT Asn	CTC Leu 175	TTC Phe	CCT Pro	GAA Glu	AAC Asn	CTT Leu 180	GTC Val	CAA Gln	GCC Ala	582
TGC Cys	TTT Phe 185	CAA Gln	CAG Gln	ATT Ile	CAA Gln	ACA Thr 190	GTG Val	ACG Thr	AAG Lys	AAA Lys	GTC Val 195	CTG Leu	GTT Val	GCA Ala	CCA Pro	630
CCG Pro 200	CCA Pro	GAC Asp	GAG Glu	GAG Glu	GCC Ala 205	AAC Asn	GCA Ala	ACC Thr	AGC Ser	GCT Ala 210	GAA Glu	GTC Val	TCT Ser	CTG Leu	TTG Leu 215	678

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 3C

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AAC Asn	GAG Glu	ACT Thr	GTG Val	ACT Thr	GAG Glu	GAG Glu	CCG Pro	GTG Val	GAG Glu	ACT Thr	AAG Lys	ATG Met	GTT Val	ATC Ile	AAG Lys	726
AAG Lys	GGC Gly	CTG Leu	GAG Glu	TTC Phe	AAG Lys	GAT Asp	GGG Gly	ATG Met	AAC Asn	GTC Val	TTA Leu	GGT Gly	CTG Leu	ATA Ile	GGG Gly	774
TTT Phe	TTC Phe	ATT Ile	GCT Ala	TTT Phe	GGC Gly	ATC Ile	GCT Ala	ATG Met	GGG Gly	AAG Lys	ATG Met	GGA Gly	GAT Asp	CAG Gln	GCC Ala	822
AAG Lys	CTG Leu	ATG Met	GTG Val	GAT Asp	TTC Phe	TTC Phe	AAC Asn	ATT Ile	TTG Leu	AAT Asn	GAG Glu	ATT Ile	GTA Val	ATG Met	AAG Lys	870
TTA Leu	GTG Val	ATC Ile	ATG Met	ATC Ile	ATG Met	ATG Met	TAC Tyr	TGG Trp	CCC Pro	CTG Leu	GGT Gly	ATC Ile	GCC Ala	TGC Cys	CTG Leu	918
ATC Ile	TGT Cys	GGA Gly	AAG Lys	ATC Ile	ATT Ile	GCA Ala	ATC Ile	GCA Ala	GAC Asp	TTA Leu	GAA Glu	GTG Val	GTT Val	GCT Ala	AGG Arg	966
CAA Gln	CTG Leu	GGG Gly	ATG Met	TAC Tyr	ATG Met	GTA Val	ACA Thr	GTA Val	ATC Ile	ATA Ile	GGC Gly	CTC Leu	ATC Ile	ATC Ile	CAC His	1014

APPROVED BY	O.G. FIG.	
	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 3D

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GGG Gly	GGC Gly	ATC Ile	330	TTT Phe	CTC Leu	CCC Pro	TTG Leu	ATT Ile	335	TAC Tyr	TTT Phe	GTA Val	GTG Val	ACC Thr	340	AGG Arg	AAA Lys	AAC Asn	1062
CCC Pro	TTC Phe	345	TCC Ser	CTT Leu	TTT Phe	GCT Ala	GGC Gly	ATT Ile	350	TTC Phe	CAA Gln	GCT Ala	TGG Trp	ATC Ile	355	ACT Thr	GCC Ala	CTG Leu	1110
GGC Gly	ACC Thr	360	GCT Ala	TCC Ser	AGT Ser	GCT Ala	GGA Gly	ACT Thr	365	TTG Leu	CCT Pro	GTC Val	ACC Thr	TTT Phe	370	CGT Arg	TGC Cys	CTG Leu	1158
GAA Glu	GAA Glu	380	AAT Asn	CTG Leu	GGG Gly	ATT Ile	GAT Asp	AAG Lys	385	CGT Arg	GTG Val	ACT Thr	AGA Arg	TTC Phe	390	GTC Val	CTT Leu	CCT Pro	1206
GTT Val	GGA Gly	395	GCA Ala	ACC Thr	ATT Ile	AAC Asn	ATG Met	GAT Asp	400	GGT Gly	ACA Thr	GCC Ala	CTT Leu	TAT Tyr	405	GAA Glu	GCG Ala	GTG Val	1254
GCC Ala	GCC Ala	410	ATC Ile	TTT Phe	ATA Ile	GCC Ala	CAA Gln	ATG Met	415	AAT Asn	GGT Gly	GTT Val	GTG Val	CTG Leu	420	GAT Asp	GGA Gly	GGA Gly	1302
CAG Gln	ATT Ile	425	GTG Val	ACT Thr	GTA Val	AGC Ser	CTC Leu	ACA Thr	430	GCC Ala	ACC Thr	CTG Leu	GCA Ala	AGC Ser	435	GTC Val	GGC Gly	GCG Ala	1350

APPROVED BY	O.G. FIG.	
	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 3E

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GCC Ala 440	AGT Ser	ATC Ile	CCC Pro	AGT Ser	GCC Ala 445	GGG Gly	CTG Leu	GTC Val	ACC Thr	ATG Met 450	CTC Leu	CTC Leu	ATT Ile	CTG Leu	ACA Thr 455	1398
GCC Ala	GTG Val	GGC Gly	CTG Leu	CCA Pro 460	ACA Thr	GAG Glu	GAC Asp	ATC Ile	AGC Ser 465	TTG Leu	CTG Leu	GTG Val	GCT Ala	GTG Val 470	GAC Asp	1446
TGG Trp	CTG Leu	CTG Leu	GAC Asp 475	AGG Arg	ATG Met	AGA Arg	ACT Thr	TCA Ser 480	GTC Val	AAT Asn	GTT Val	GTG Val	GGT Gly 485	GAC Asp	TCT Ser	1494
TTT Phe	GGG Gly	GCT Ala 490	GGG Gly	ATA Ile	GTC Val	TAT Tyr	CAC His 495	CTC Leu	TCC Ser	AAG Lys	TCT Ser	GAG Glu 500	CTG Leu	GAT Asp	ACC Thr	1542
ATT Ile	GAC Asp 505	TCC Ser	GAG Gln	CAT His	CGA Arg	GTG Val 510	CAT His	GAA Glu	GAT Asp	ATT Ile	GAA Glu 515	ATG Met	ACC Thr	AAG Lys	ACT Thr	1590
CAA Gln 520	TCC Ser	ATT Ile	TAT Tyr	GAT Asp	GAC Asp 525	ATG Met	AAG Lys	AAC Asn	CAC His	AGG Arg 530	GAA Glu	AGC Ser	AAC Asn	TCT Ser	ATT Asn 535	1638
CAA Gln	TGT Cys	GTC Val	TAT Tyr	GCT Ala 540	GCA Ala	CAC His	AAC Asn	TCT Ser	GTC Val 545	ATA Ile	GTA Val	GAT Asp	GAA Glu	TGC Cys 550	AAG Lys	1686

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 3F

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GTA ACT CTG GCA GCC AAT GGA AAG TCA GCC GAC TGC AGT GTT GAG GAA 1734
 Val Thr Leu Ala Ala Ala Asn Gly Lys Ser Ser Ala Asp Cys Ser Val Glu Glu
 555 560 565

GAA CCT TGG AAA CGT GAG AAA TAAGGATATG AGTCTCAGCA AATTCTTGAA 1785
 Glu Pro Trp Lys Arg Glu Lys

TAAACTCCCC AGCGT 1800

APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

FIG. 4A

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ATAGCGGCGA	CAGCC	ATG	GGG	AAA	CCG	GCG	AGG	AAA	GGA	TGC	CCG	AGT	TGG	51
		Met	Gly	Lys	Pro	Ala	Arg	Lys	Gly	Cys	Pro	Ser	Trp	
		1				5					10			
AAG	CGC	TTC	CTG	AAG	TGG	GTG	TTG	CTG	TCC	ACC	GTG	GCC	GCG	99
Lys	Arg	Phe	Leu	Lys	Trp	Val	Leu	Leu	Ser	Thr	Val	Ala	Ala	
		15			20					25				
GTG	GTG	CTA	GGC	ATT	ACC	GTC	TTG	GTT	CGA	GAA	CAC	AGC	AAC	147
Val	Val	Leu	Gly	Ile	Thr	Val	Leu	Val	Arg	Glu	His	Ser	Asn	
		30			35				40					
CTC	TCA	ACT	CTA	GAG	TTC	TTT	GCT	TTT	CCT	GGA	GAA	ATT	CTA	195
Leu	Ser	Thr	Leu	Glu	Phe	Phe	Ala	Phe	Pro	Gly	Glu	Ile	Leu	
45				50				55					60	
ATG	GGG	ATG	CTG	AAA	CTC	TTG	CCA	TTA	ATT	ATA	TCC	AGC	ATG	243
Met	Arg	Met	Leu	Lys	Ile	Ile	Pro	Leu	Ile	Ile	Ser	Ser	Met	
				65			70					75		
ATT	ACA	GGT	GTT	GCT	GCA	TCC	AAC	GTA	TCC	GGA	AAA	ATT	GGT	291
Ile	Thr	Gly	Val	Ala	Ala	Ser	Asn	Val	Ser	Gly	Lys	Ile	Gly	
			80			85					90			
CTG	CGC	GCT	GTC	GTG	TAT	TTC	TGT	ACC	CTC	ATT	GCT	GTT	ATT	339
Leu	Arg	Ala	Val	Val	Tyr	Phe	Cys	Thr	Leu	Ile	Ala	Val	Ile	
						100				105				

APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

FIG. 4B

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CTA Leu	GGT Gly 110	ATT Ile	GTG Val	CTG Leu	GTG Val	GTG Val 115	AGC Ser	ATC Ile	AAG Lys	CCT Pro	GGT Gly 120	GTC Val	ACC Thr	CAG Gln	AAA Lys	387
GTG Val 125	GGT Gly	GAA Glu	ATT Ile	GCG Ala	AGG Arg	ACA Thr	GGC Gly	AGC Ser	ACC Thr	CCT Pro 135	GAA Glu	GTC Val	AGT Ser	ACG Thr	GTG Val 140	435
GAT Asp	GCC Ala	ATG Met	TTA Leu	GAT Asp 145	CTC Leu	ATC Ile	AGG Arg	AAT Asn	ATG Met 150	TTC Phe	CCT Pro	GAG Glu	AAT Asn	CTT Leu 155	GTC Val	483
CAG Gln	GCC Ala	TGT Cys	TTT Phe 160	CAG Gln	CAG Gln	TAC Tyr	AAA Lys	ACT Thr 165	AAG Lys	CGT Arg	GAA Glu	GAA Glu	GTG Val 170	AAG Lys	CCT Pro	531
CCC Pro	AGC Ser	GAT Asp 175	CCA Pro	GAG Glu	ATG Met	AAC Asn	ATG Met 180	ACA Thr	GAA Glu	GAG Glu	TCC Ser	TTC Phe 185	ACA Thr	GCT Ala	GTC Val	579
ATG Met	ACA Thr 190	ACT Thr	GCA Ala	ATT Ile	TCC Ser	AAG Lys 195	AAC Asn	AAA Lys	ACA Thr	AAG Lys	GAA Glu 200	TAC Tyr	AAA Lys	ATT Ile	GTT Val	627
GGC Gly 205	ATG Met	TAT Tyr	TCA Ser	GAT Asp	GGC Gly 210	ATA Ile	AAC Asn	GTC Val	CTG Leu	GGC Gly 215	TTG Leu	ATT Ile	GTC Val	TTT Phe	TGC Cys 220	675
CTT Leu	GTC Val	TTT Phe	GGA Gly	CTT Leu 225	GTC Val	ATT Ile	GGA Gly	AAA Lys	ATG Met 230	GGA Gly	GAA Glu	AAG Lys	GGA Gly	CAA Gln 235	ATT Ile	723

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 4C

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CTG Leu	GTG Val	GAT Asp	TTC Phe	TTC Phe	GCT Ala	TTG Leu	AGT Ser	GAT Asp	GCA Ala	ACC Thr	ATG Met	AAA Lys	ATC Ile	GTT Val	771
			240				245					250			
CAG Gln	ATC Ile	ATC Ile	ATG Met	TGT Cys	TAT Tyr	ATG Met	CCA Pro	GGT Gly	ATT Ile	TTG Leu	TTC Phe	CTG Leu	ATT Ile	GCT Ala	819
		255					260				265				
GGG Gly	AAG Lys	ATC Ile	ATA Ile	GAA Glu	GTT Val	GAA Glu	GAC Asp	TGG Trp	ATA Ile	TTC Phe	CGC Arg	AAG Lys	CTG Leu	GGC Gly	867
	270					275					280				
CTT Leu	TAC Tyr	ATG Met	GCC Ala	ACA Thr	GTC Val	CTG Leu	ACT Thr	GGG Gly	GCA Ala	ATC Ile	CAC His	TCC Ser	ATT Ile	GTA Val	915
	285				290				295					300	
ATT Ile	CTC Leu	CCG Pro	CTG Leu	ATA Ile	TAT Tyr	TTC Phe	ATA Ile	GTC Val	CGA Arg	AAG Lys	AAC Asn	CCT Pro	TTC Phe	CGA Arg	963
					305				310				315		
TTT Phe	GCC Ala	ATG Met	GGA Gly	ATG Met	GCC Ala	CAG Gln	GCT Ala	CTC Leu	ACA Thr	GCT Ala	CTC Leu	ATG Met	ATC Ile	TCT Ser	1011
			320					325				330			
TCC Ser	AGT Ser	TCA Ser	GCA Ala	ACA Thr	CTG Leu	CCT Pro	GTC Val	TTC Phe	CGC Arg	TGT Cys	GCT Ala	GAA Glu	GAA Glu	AAT Asn	1059
		335					340				345				

APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

FIG. 4D

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AAC Asn 365	CAG Gln 350	GTG Val	GAC Asp	AAG Lys	AGG Arg	ATC Ile 355	ACT Thr	CGA Arg	TTC Phe	CTG Val	TTA Leu 360	CCC Pro	GTT Val	GGT Gly	GCA Ala	1107
ACA Thr 365	ATC Ile	AAC Asn	ATG Met	GAT Asp	GGG Gly 370	ACC Thr	GCG Ala	CTC Leu	TAT Tyr	GAA Glu 375	GCA Ala	GTG Val	GCA Ala	GCG Ala	GTG Val 380	1155
TTT Phe	ATT Ile	GCA Ala	CAG Gln	TTG Leu 385	AAT Asn	GAC Asp	CTG Leu	GAC Asp	TTG Leu 390	GGC Gly	ATT Ile	GGG Gly	CAG Gln	ATC Ile 395	ATC Ile	1203
ACC Thr	ATC Ile	AGT Ser	ATC Ile 400	ACG Thr	GCC Ala	ACA Thr	TCT Ser	GCC Ala 405	AGC Ser	ATC Ile	GGA Gly	GCT Ala	GCT Ala 410	GGC Gly	GTG Val	1251
CCC Pro	CAG Gln	GCT Ala 415	GGC Gly	CTG Leu	GTG Val	ACC Thr	ATG Met 420	GTG Val	ATT Ile	GTG Val	CTG Leu	AGT Ser 425	GCC Ala	GTG Val	GGC Gly	1299
CTG Leu	CCC Pro 430	GCC Ala	GAG Glu	GAT Asp	GTC Val	ACC Thr 435	CTG Leu	ATC Ile	ATT Ile	GCT Ala	GTC Val 440	GAC Asp	TGG Trp	CTC Leu	CTG Leu	1347
GAC Asp 445	CGG Arg	TTC Phe	AGG Arg	ACC Thr	ATG Met 450	GTC Val	AAC Asn	GTC Val	CTT Leu	GGT Gly 455	GAT Asp	GCT Ala	TTT Phe	GGG Gly	ACT Thr 460	1395

APPROVED	O.G. FIG.	
BY	CLASS	SURCLASS
DRAFTSMAN		

FIG. 4E

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GGC Gly	ATT Ile	GTG Val	GAA Glu	AAG Lys	CTC Leu	TCC Ser	AAG Lys	AAG Lys	GAG Glu	CTG Leu	GAG Glu	GAG Gln	ATG Met	GAT Asp	GTT Val	1443
			465						470					475		
TCA Ser	TCT Ser	GAA Glu	GTC Val	AAC Asn	ATT Ile	GTG Val	AAT Asn	CCC Pro	TTT Phe	GCC Ala	TTG Leu	GAA Glu	TCC Ser	ACA Thr	ATC Ile	1491
			480					485					490			
CTT Leu	GAC Asp	AAC Asn	GAA Glu	GAC Asp	TCA Ser	GAC Asp	ACC Thr	AAG Lys	AAG Lys	TCT Ser	TAT Thr	GTC Val	AAT Asn	GGA Gly	GGC Gly	1539
			495				500					505				
TTT Phe	GCA Ala	GTA Val	GAC Asp	AAG Lys	TCT Ser	GAC Asp	ACC Thr	ATC Ile	TCA Ser	TTC Phe	ACC Thr	GAG Gln	ACC Thr	TCA Ser	CAG Gln	1587
			510				515					520				
TTC Phe	TAGGGCCCCT	GGCTGCAGAT	GACTGGAAAC	AAGGAAGGAC	ATTTCGTGAG											1640
525																
AGTCATCTCA	AACACGGGCTT	AAGGAAAAGA	GAAA													1674

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 5A

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ASCT1	MEKSNETNGLYDSAQAGPAAGPGAPGTAAGRARRCARFLRRQALVLL..TVSGVLACAGLGAALR.GL
GLAST1	MTKSNGEPRMGSRMTRFQQGVKRKRTLAKKKVQNIKEDVKS YLFRNAFVLL..TVSAVIVGTILGFAIRPY.
GLT1	MASTEGANNMPKQVEVRMHDSHLSSEEPKHRNLGMRMCDKLGKNLLLSLTVFGVILGAVCGGLRLAA
EAAC1	MGKPARKGCDSKRFLKNNWLLS.TVAVAVLGVIVGVLVREYS
66	SLSRTOVTYLAFFGEMLRMLRVIIILPLVVC SLVQAASLDASCLQR LGIRVAYFGL.TTLSASALAVALAFI
72	KMSYREVKYFSFPGEILMRMLQVLVLP LIISSLV TGM AALDSKASKMG M.RAVVYYMTTIIAVVIGIIVII
69	PIHPDVVMLIAFP GD ILMRMLKVLI LP LIISSLITGLSGLDKASGR LGT.RAMVYYMSTTIIAAVLGVILVLA
43	NLSTLDKFFYFAFPGEILMRMLKLVILPLIVSSMITGVAALDSNVSGKIGL.RAVLYYFCCTIIAVILGIVLVVS
130	IKPGSGAQTLQSSDLGLEDSGPPVPKETVDSFIDLARNLFPSNLVVAAFRTYATDYKVV.....TONSS\$
145	IHPGKGT.KENMYREGKIVOVTA.....ADAFDLIRNMFPPNLVEACFKQFKTSYEKR SFKVPIQANETLLG
142	IHPGNPKLKKQLGPGKKNDEVSS.....LDAFLDLIRNLFPENLVQACFOQIQTVTKKVLVAPPS.EEANTTK
116	IKPGVTQKVDEIDRTGSTPEVST.....VDAMLDLIRNMFPENLVQACFQQYKTTREEV..TASDDTGKNGTE
205	GNVTHEKIPIGTEI.....EGMNILGLVLFALVGLVALKKLGSEGEDLIRFFNSLNEATVVLVSW
212	AVINNVEAMETLTRIREEMVPVPGSVN.GVNALGLVVFSMCFGVIGNMKEQGGALREFFDSLNEAIVRLVAV
209	AVISLINETMNEAPEETKIVIKKGLEFKDGMNVGLIGFFIAGIAMKMGVAGGADGVLOMSERDCHEVSDM
182	ESVTAVMTTAVS#NRJ#KEYRVVUGLYS..DGINVLGLIVFCLVFGLVIGKMGEGKGLVDFFNALSDATVKIVQI
265	IMWYVPVGIMFLVGSRI VEMKDII VLVTS LGKYIFASILGHVIHGGIVLPLIYFVETRKNPREFLLGLLAPFAT
285	IMWYAPLGILFLIAGKILEMEDMGVIGGOLAMYT VTI VGLLIHAVIVLPLIYFLVTRKNPWFVIGGLLQALIT
283	DHVFPAGIACLICGKIIAIKDLEVVARO LGM YMITVI VGLI IHGGIFLPLIYFVVTRKNPSEFFAGIFQAWIT
254	IMCYMPLGILFLIAGKII EVEDWEIF.RKLGLYMVTVLSGLAIHSIVILPLIYFIVVRKNPFRFAMGMTQALLT
339	AFATCSSSATLP SMMKCI EENNGVDKRISREILPIGATVNM DGAAIFOCVAAVFIAGLN NIELNAGQIFGILVT
350	ALGTSSSSSATLPITFKCLEENNGVDKRI TRFVLPVGATINMDGTALYEALAAIFIAGVNNFDLNFEGQIITISIT
357	ALGTASSAGTLPVTRCLEDNLGIDKRVTRFVLPVGATINMDGTALYEAVAAIFIAGMNGVILDGGQIVTVSLT
327	ALMISSSATLPVTRCAEEKNRVDKRI TRFVLPVGATINMDGTALYEAVAAVFIAGLNDMDLSIGQIITISVT

APPROVED BY	O.G. FIG.	
	CLASS	SUBCLASS
DRAFTSMAN		

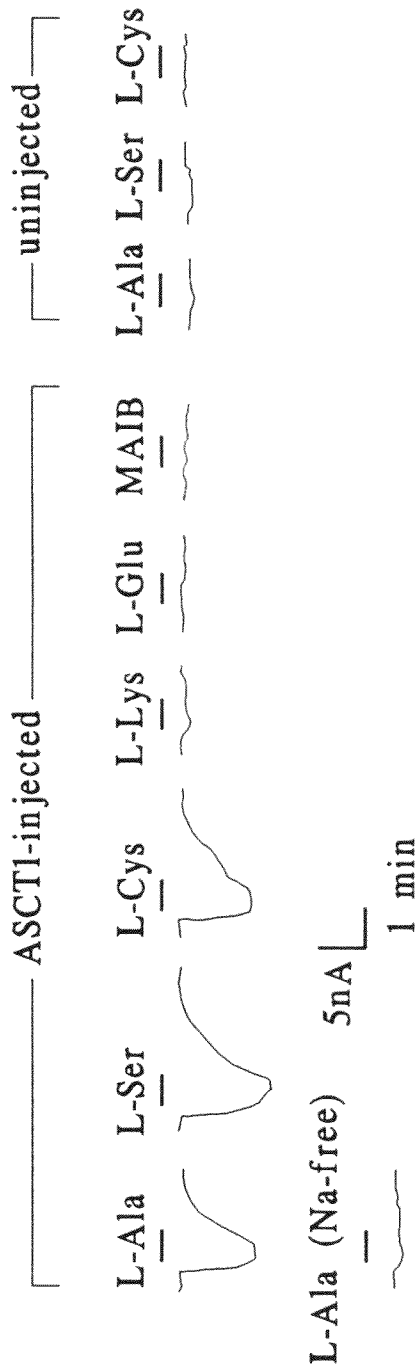
FIG. 5B

413	ATASSVGAAGVPAGGVL	II	LEAIGLPTHDLPLI	LAVDWIVDR	TTTVNV	VEGDALGAGI	LHMLNOKATKKGE
433	ATAASIGAAGI	POAGLVTM	VI	VLTSVGLPTDDI	TLII	AVDWFLDRL	RTTTNVLGDSL
431	ATLASIGAASI	PSAGLVTM	LLII	LTAVGLPTEDIS	LL	VAVDWLLDR	MRTSVNVGDS
401	ATAASIGAAGV	POAGLVTM	VI	VLSAVGLPAEDV	TLII	AVDWLLDR	FRTVNVVLGDA
487	QELAEVKVEAI	PNCKSEET	SPLVTHQN	PAGPVASAP	EL	ESV	L 532
507	VEMGNSVIEE	NEMKKPYQ	LIAQDNE	PEKPVADSE	TKM		543
505	SQHRMHEDI	EMTKTQSV	YDDTKN	HRESNSNQ	CVYAAHNS	VVIDECKVT	LAANGKSADCS
475	VSSEVNI	VNPFAL	ESATLDN	EDSDTKKSY	INGGFAVDK	SDTISFTQ	TSQF 524

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 6A

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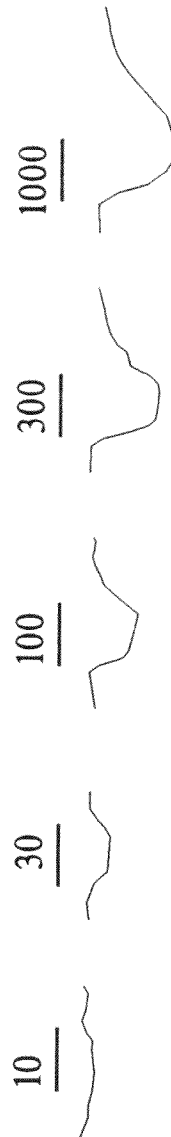


APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

FIG. 6B

SHEET 25 OF 42

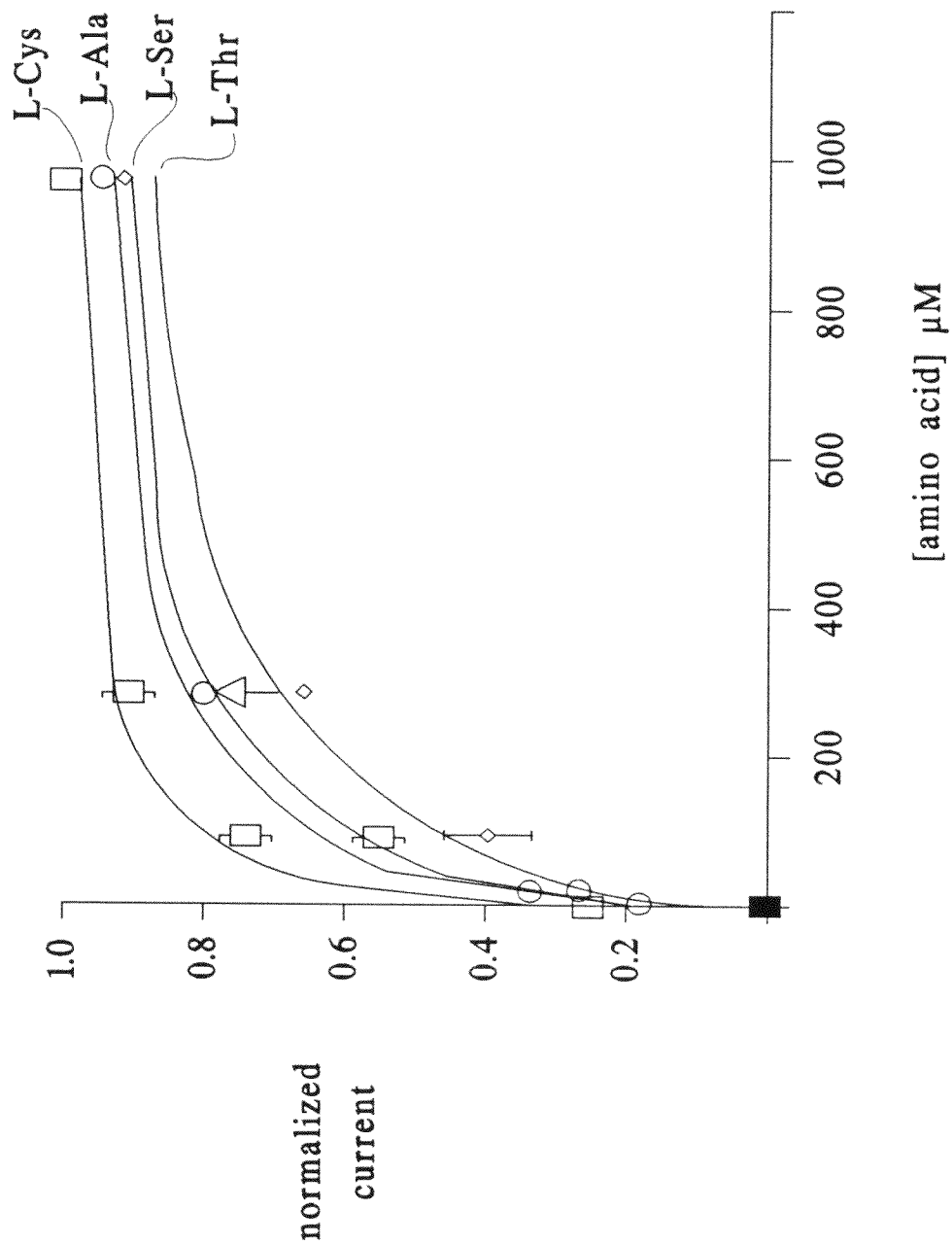
L-Alanine (μM)



APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

FIG. 6C

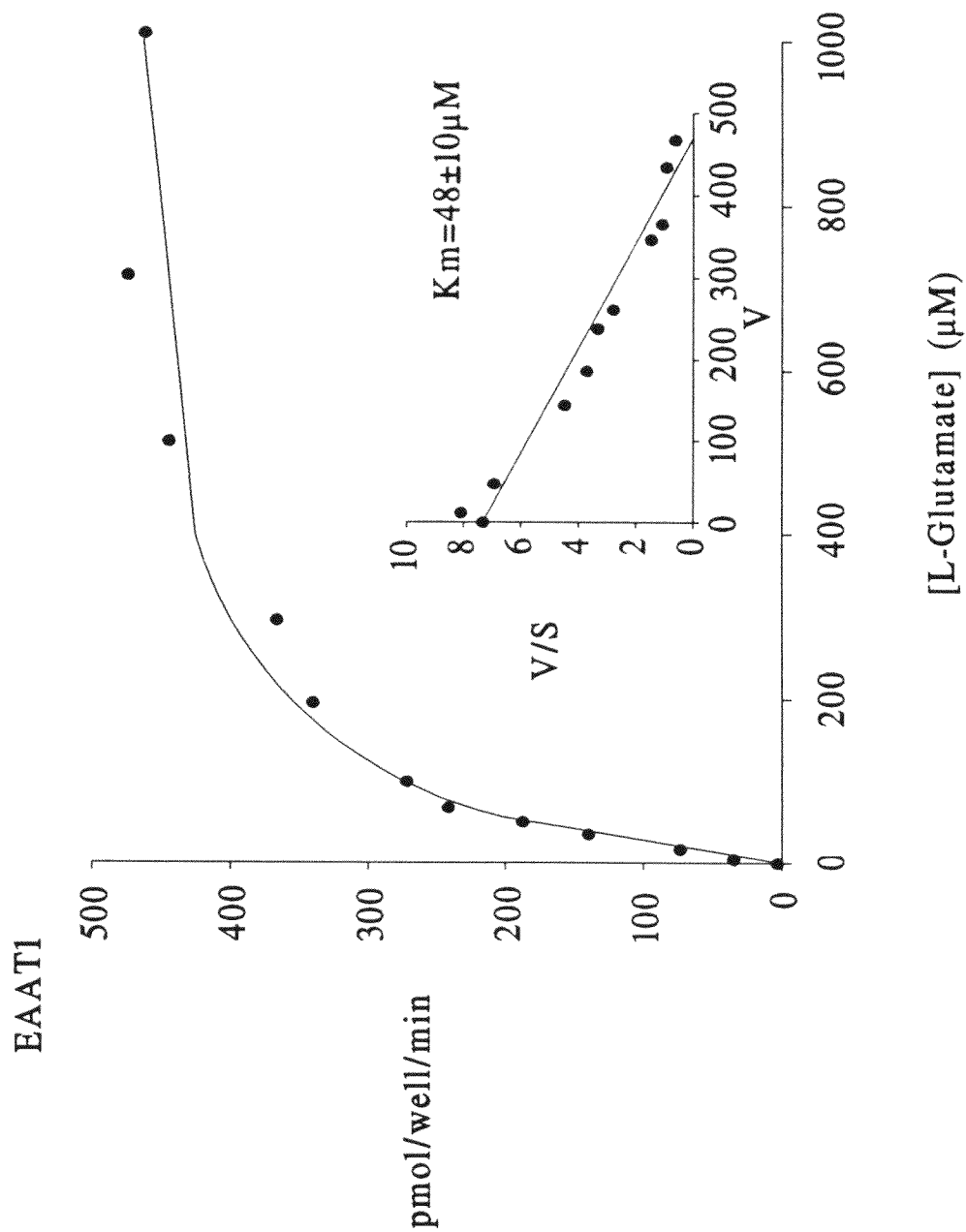
SHEET 26 OF 42



APPROVED BY	O.G. FIG.	
	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 7A

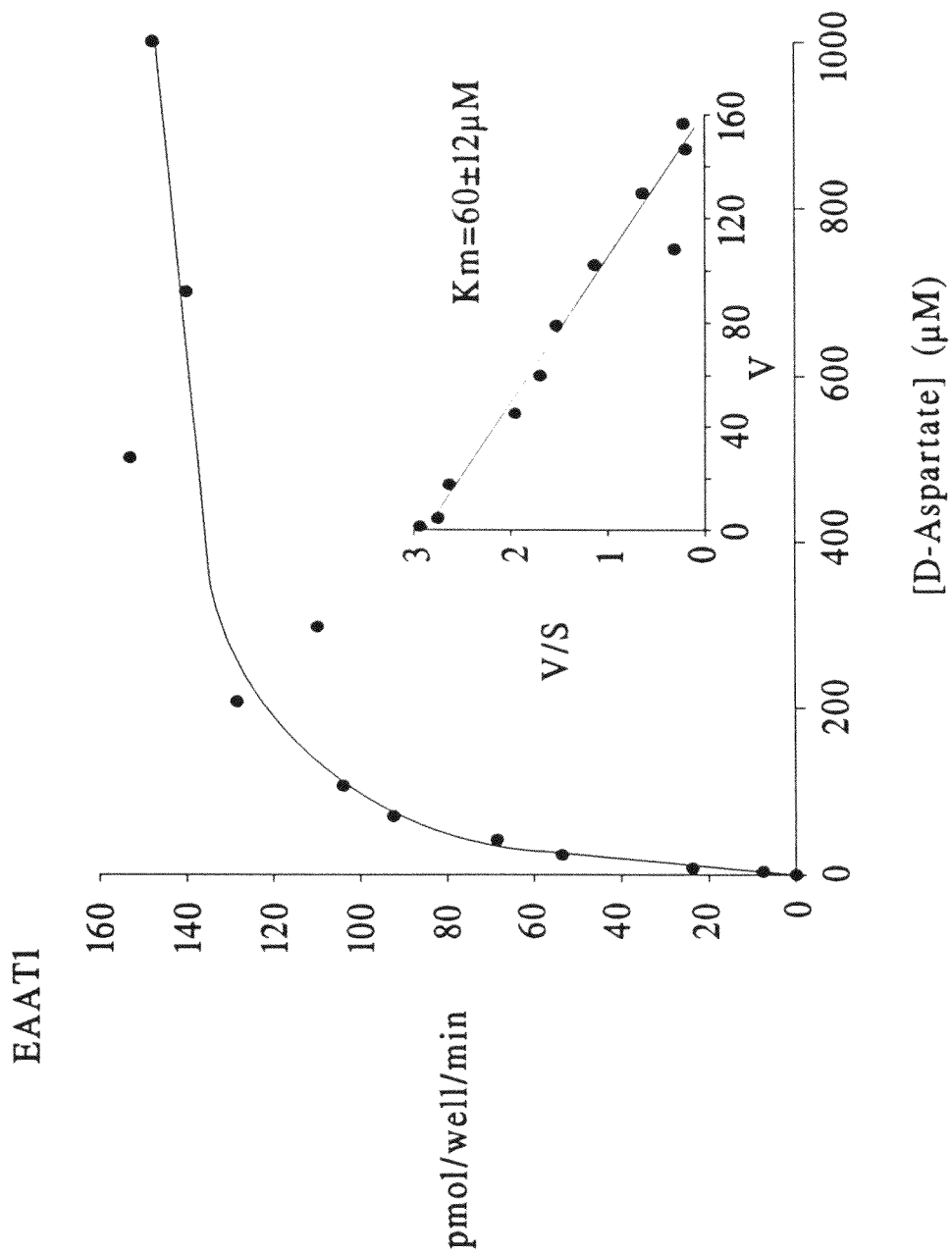
SHEET 27 OF 42



APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS

FIG. 7B

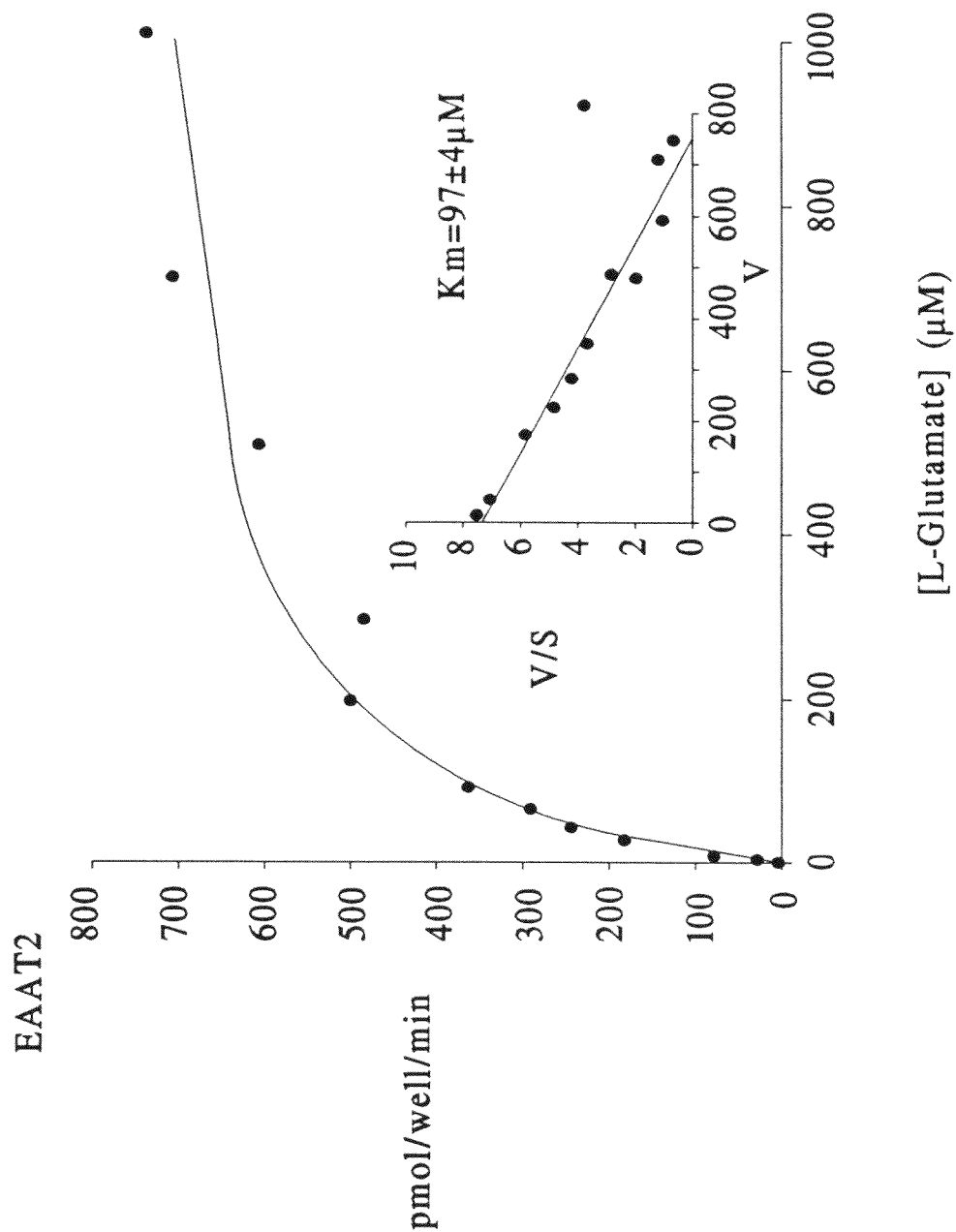
SHEET 28 OF 42



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 7C

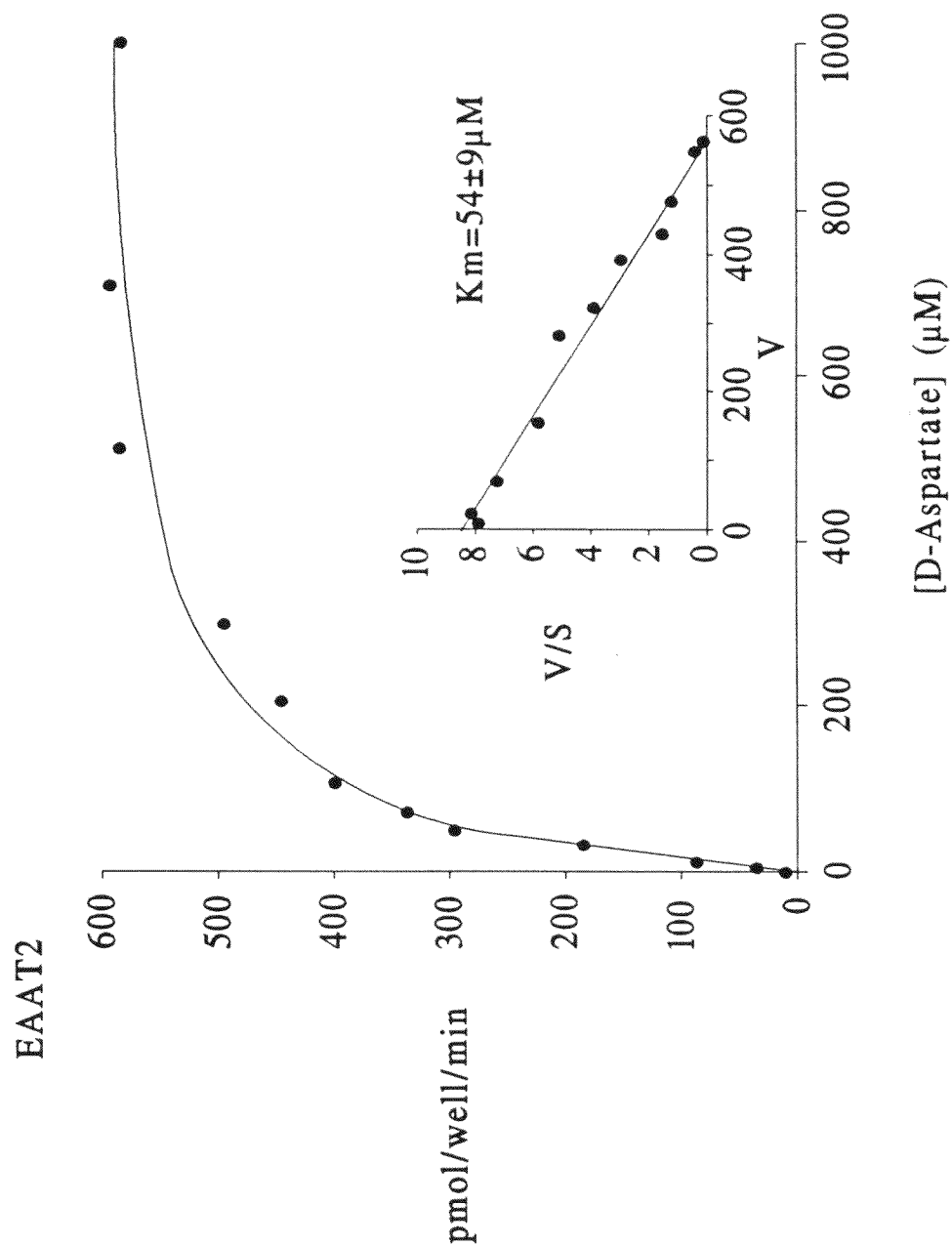
SHEET 29 OF 42



APPROVED	O.G. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS

FIG. 7D

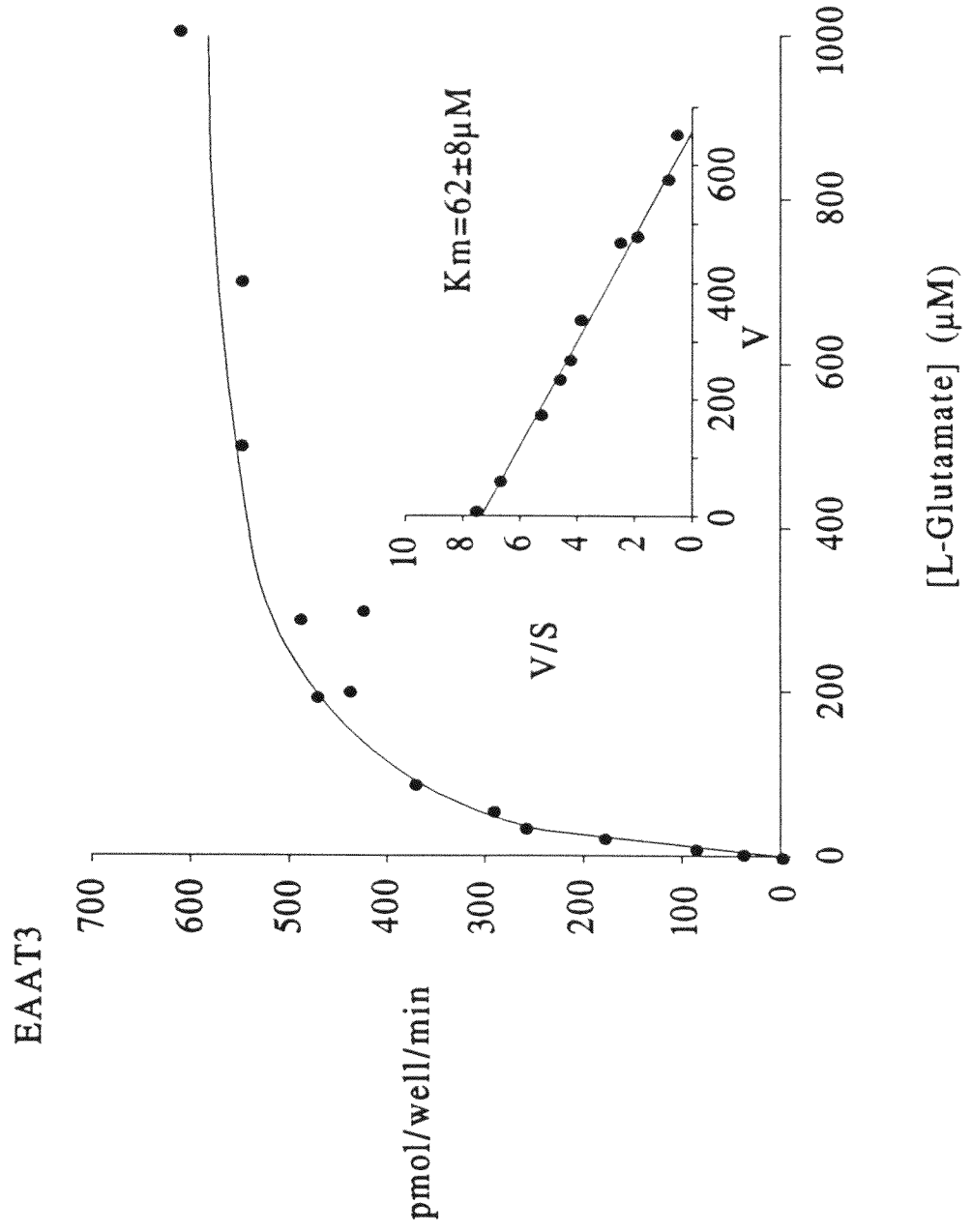
SHEET 30 OF 42



APPROVED BY	O.G. FIG.	
	CLASS	SUBCLASS
DRAFTSMAN		

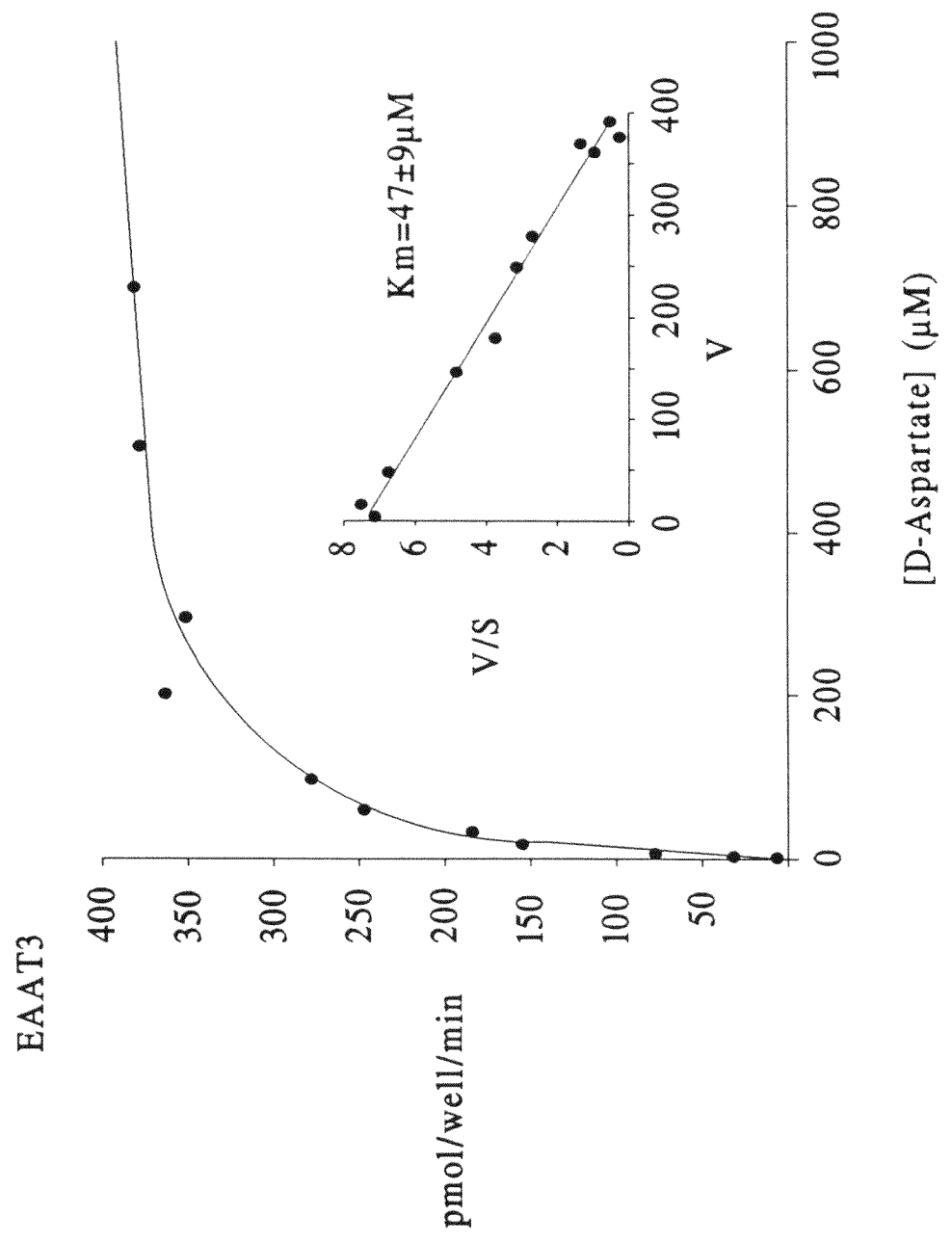
FIG. 7E

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APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

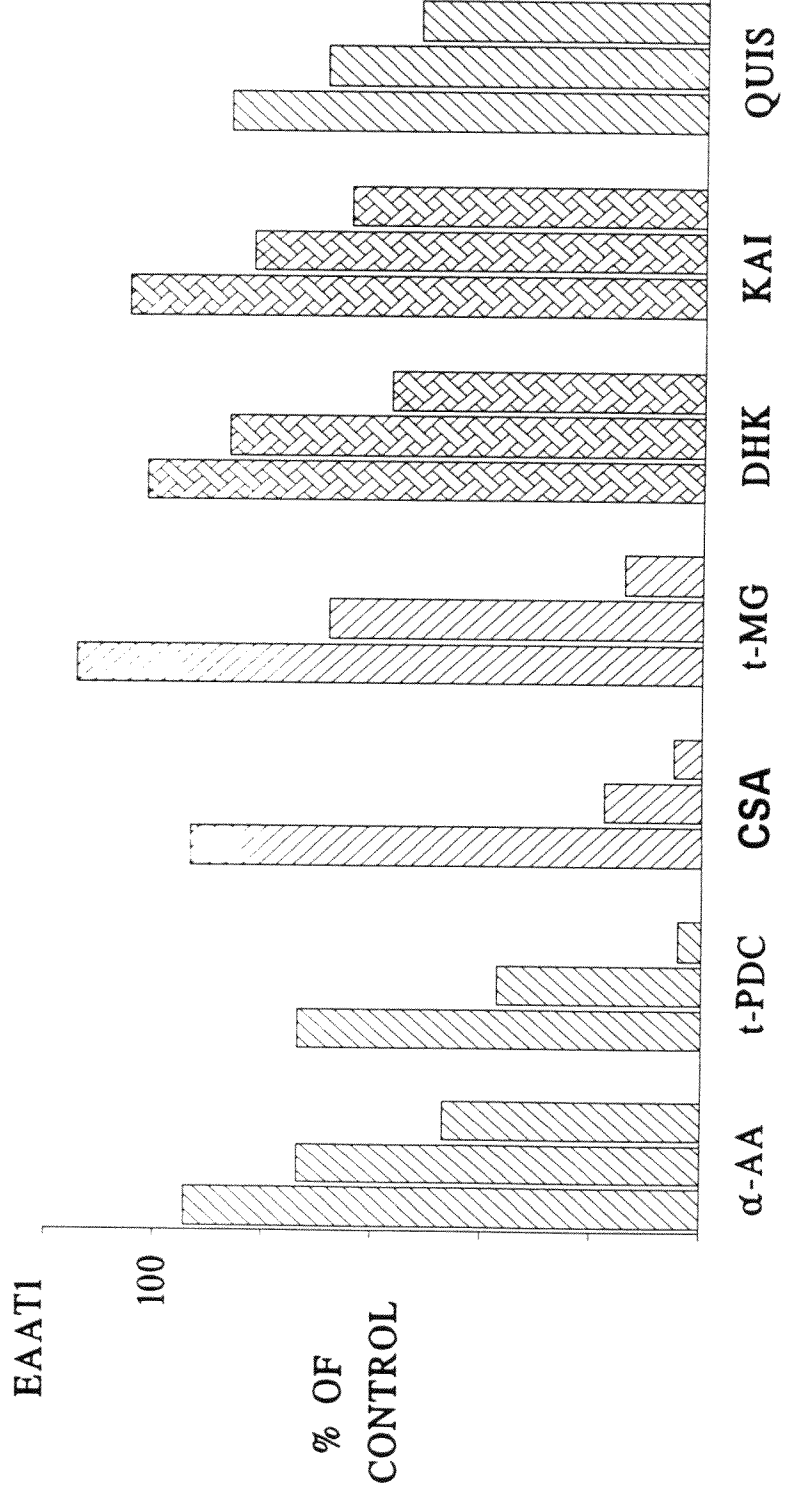
FIG. 7F



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 8A

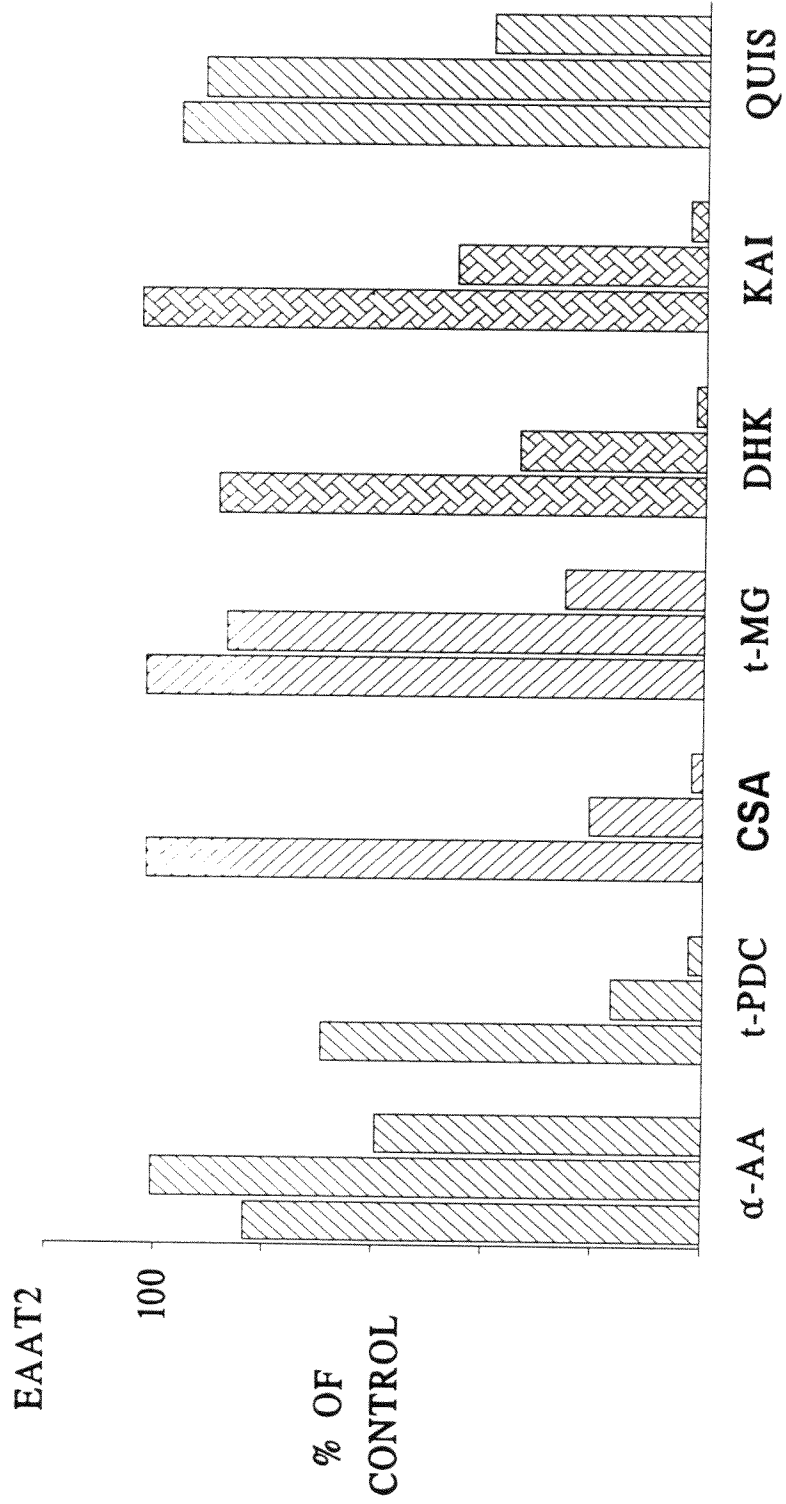
SHEET 33 OF 42



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

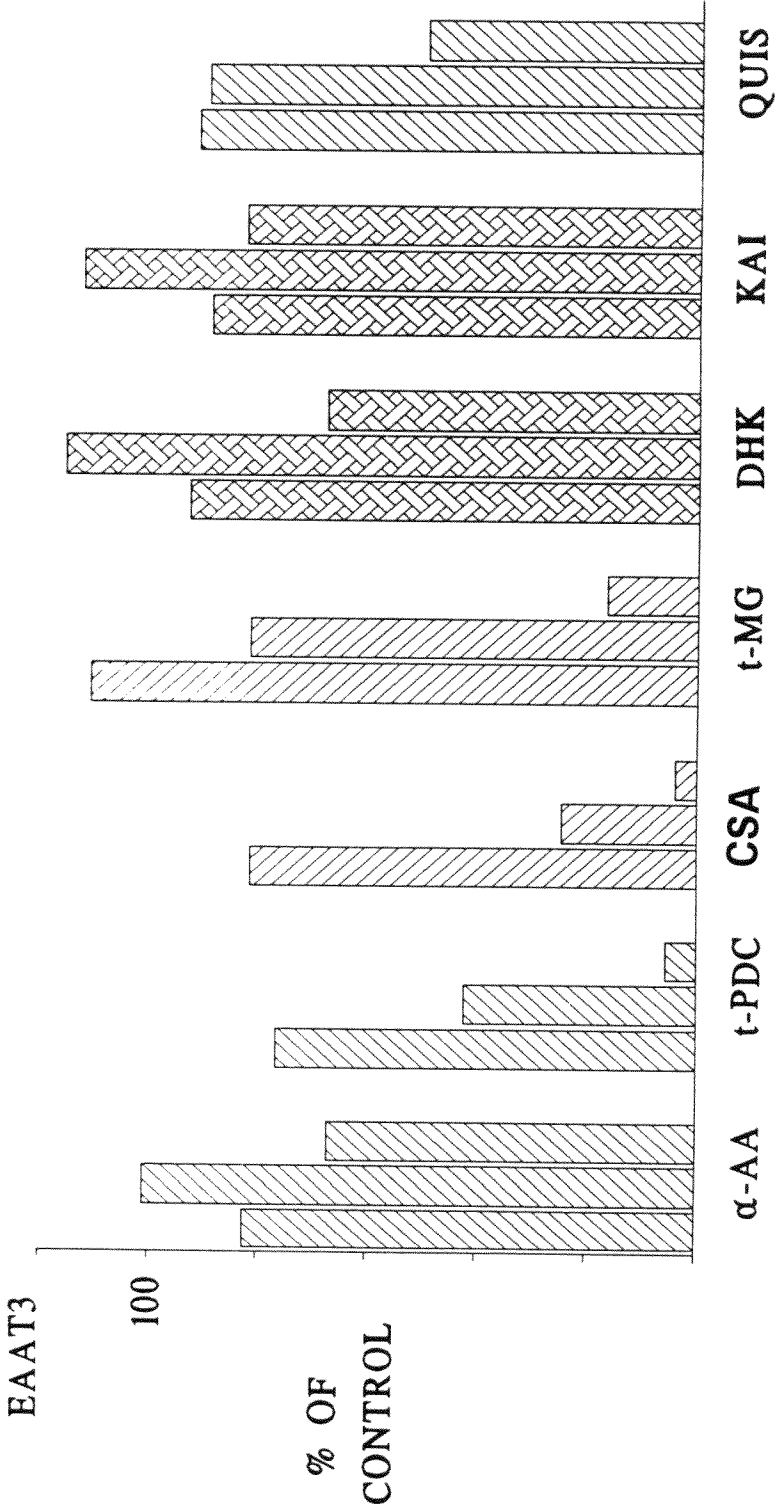
FIG. 8B

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APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

FIG. 8C



APPROVED	O.G. FIG.	
	CLASS	SUBCLASS
BY	DRAFTSMAN	

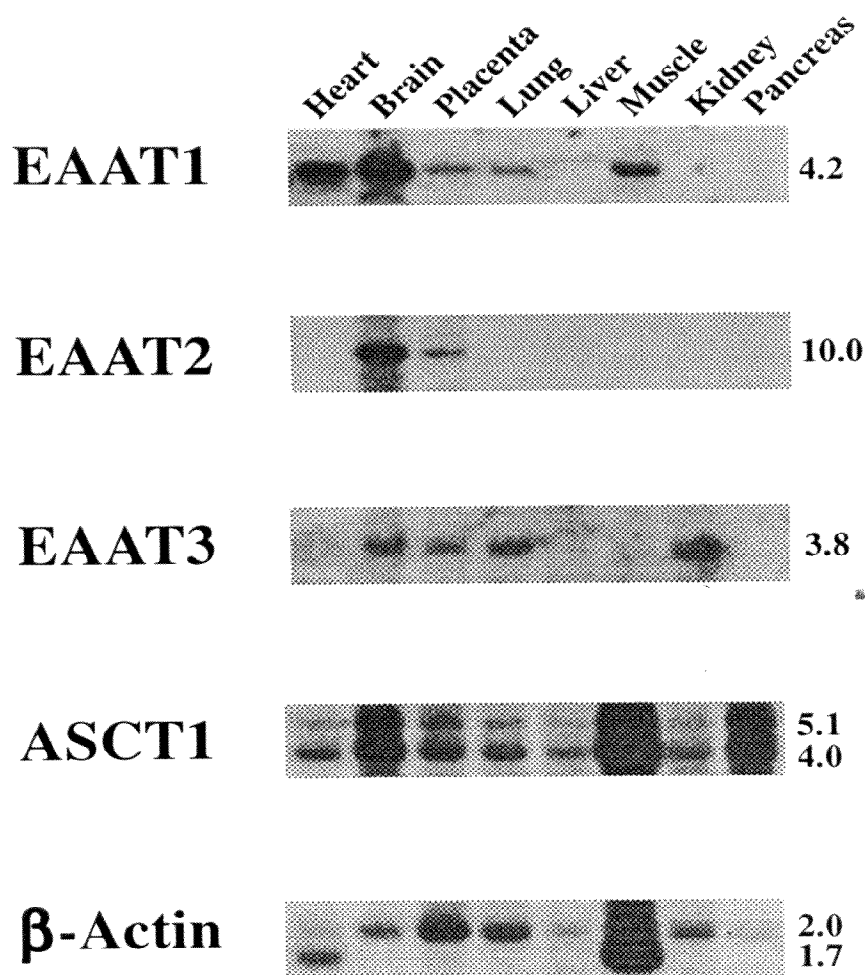


Figure 9

APPROVED	O.G. FIG.	
	CLASS	SUBCLASS
BY	DRAFTSMAN	

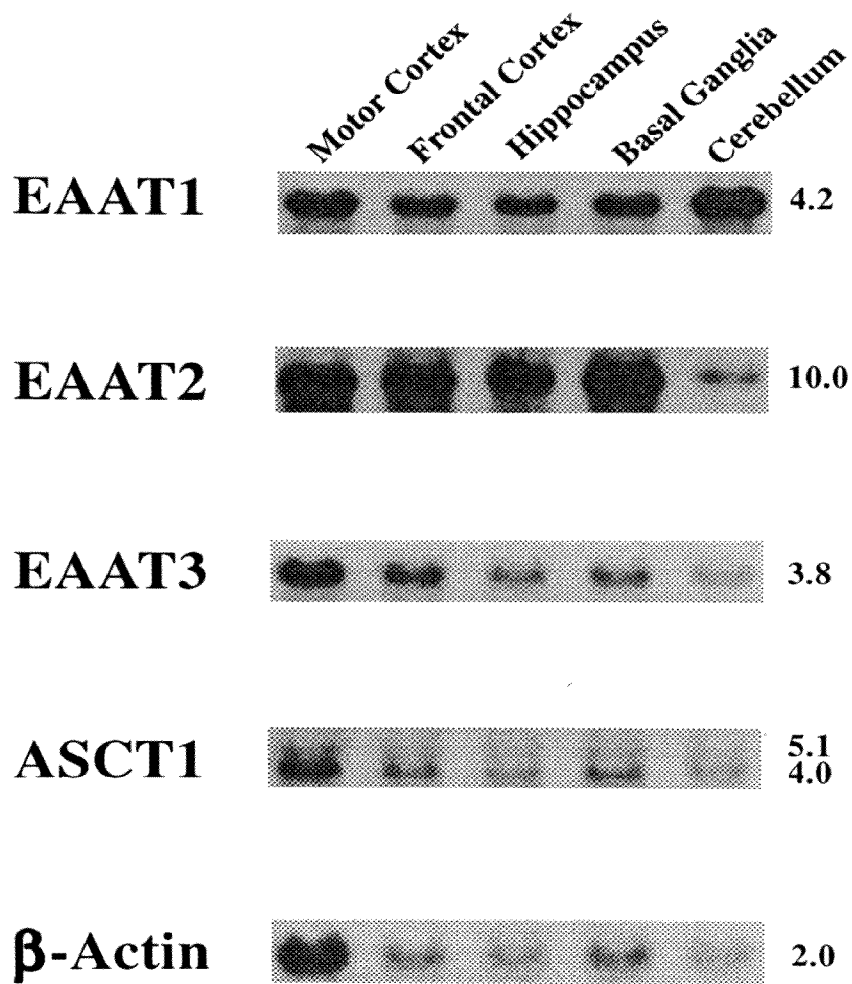


Figure 10

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 11

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EAAT1 MTKSNGEPPKMGGRMERFQQGVRRKRTLLAKKKVQNTKKOVKSYLEGNPFVLL..TVTAVIVGI.LGFILRPY.
EAAT2 MASTEGANNMPKQVEVRMPDSDLGSEEPKHRMLGLRLCDKLGKNNLLLTFTVFGVILGAVCGGLRLAS
EAAT3 MGKPARKGCPSPWKRFELKNNWVLLS.TVAAVVGITTGVLVREHS

1

72 RMSYREVKYFSFPGELIMRMLOMLVPLIISSSLVTGMAALDSKASGKMGRVAVVYMTTIIAAVIGIIVII
69 PIMPDVVMMLIAFPGDIIMRMMLKMLILPLIISSSLITGLSLDAKASGRIGTRAMVYMTSTIIAAVLGVILVLA
44 NLSTLEKFYFAFPGEILMRMLKLIILPLIISSMITGVAALDQNVSGKIGIRAVVYFGTIIAAILGIVLVVSI

2 3

146 HPGKGT KENMHREGKIVRVTAAADAFDLIRNMFPPNLVEACFKQFKGTGYEKRSEKVP IQANETLVGAVIMNS
143 HPGNPKLKKQLPGKKNDEVSSLDADFLLIRNLFPENLVQACFQOIQTVTKKVLVAPPDEEANATSAEVSLN
118 KPGVTQKVGEIARTGSTPEVSTVDAMLIRNMFENLVQACFQQVTKRFEV..KPPSDPFNNNTEESFTAVM

4 5

219 EAMETLTRITFELVPVPGSVN.GVNALGLVFSMCFGFVIGNMKEQQALREFFDSLNEAIMRLVAVIMWYAPE
217 ETVTEVPEETKMVIKKGLEFKDGMNVGLIGFFIAFGIAMGKMGDQAKLMVDFFNI LNEIVMKLVIMIMWYSPL
190 TTAISKNTKTFYKIVGMYS..DGINVLGLIVECLVGLVIGMGEKGQILVDEFFNALS DATMKIVQIIMCV MPL

6 7

292 GILFLIAGKIVEMEDMGVIGGQI AMYTVTVIVGLLIHAVIVPLPLYELVTRKNPWVFIGGLIQALITALGTSSS
291 GIACLICGKI IAIKDLEVVARQLGMVMTVI IGLIIHGGIFLPLIYEVVTRKNPFSLFAGIFQAWITALGTASS
261 GILELIAGKIIIEVEDWEIF.RKLGlyMATVLTGLAIHSIVILPLIYFIVVRKNPFRFAMGMAQALITAIMI SSS

8

366 SATLPITFKCLEENNGVDKRVTRFVLPVGATINMDGTALYEALAAIFIAQVNNFELNFGQIITISITATAASIG
385 AGTLPI TEKCLEENLGIDKRVTRFVLPVGATINMDGTALYEAVAAIFIAQMNGVVLDGGQIVTVSLTATIASVG
334 SATLPITFKCAEENNOVDKRI TRFVLPVGATINMDGTALYEAVAAVFAQLNDLDLGIGQIITISITATSASIG

FIG. 11A

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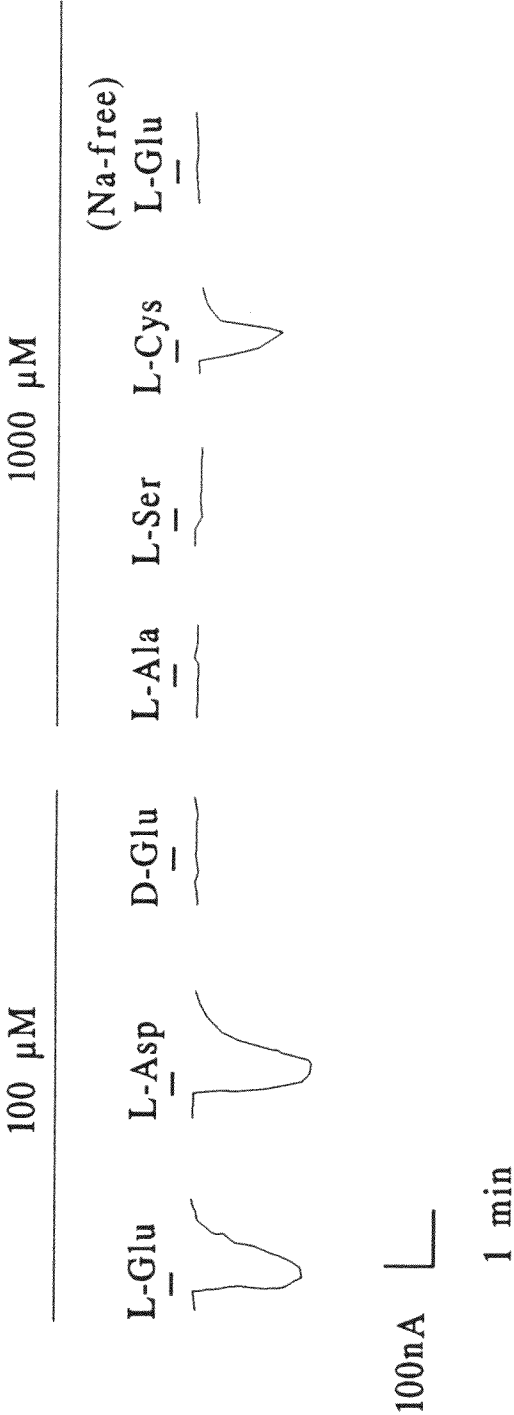
APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

—9—

440 AAGIPQAGLVTMVI VLT SVGLPTDDITIIIAVDWFLDRLRTTNNVLGDSL GAGIVEHLSRHEIKNRDVMGNSV
 439 AASIP SAGLVTMLLILTAVGLPTEDISLLVAVDWLLDRMRTSVNVVGDSEFGAGIVYHLSKSELDTIDSQMRVHE
 408 AAGVPQAGLVTMVI VLSAVGLPAEDVTIIIAVDWLLDRFRTMNVNVLGDAFGTGIVEKLSKKEIEQMDVSSEVNI
 514 IEENEMKKPYQLIAQDNTEKPIDSETKM 542
 513 DIEMTKTQSIYDDMKNHRESNSNQCVYAAHNSVIVDECKVTTLAANGKSADCSVEEPPWKREK 574
 482 VNPFALESTILDNEDSDTKKSYVNGGFAVDKSDTISFTQTSQF 525

APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

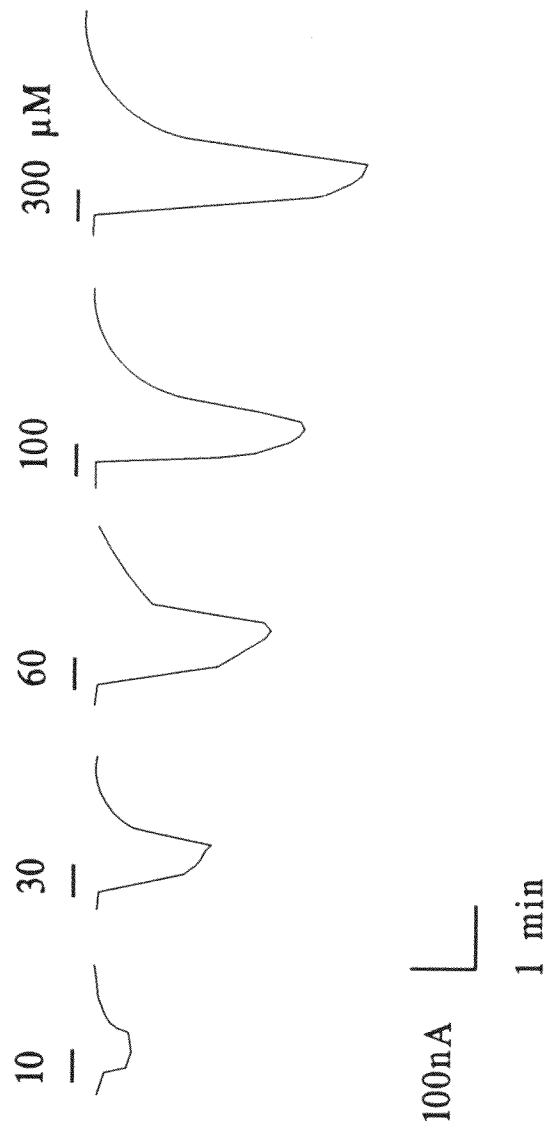
FIG. 12A



APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

FIG. 12B

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APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

FIG. 12C

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